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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/058,575	01/28/2002	Shane Y. Hong	AP33951	4314
21003	7590	07/13/2004	EXAMINER	
BAKER & BOTTS 30 ROCKEFELLER PLAZA NEW YORK, NY 10112			LOPEZ, CARLOS N	
			ART UNIT	PAPER NUMBER

1731

DATE MAILED: 07/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/058,575	Applicant(s) HONG, SHANE Y.	
	Examiner Carlos Lopez	Art Unit 1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-39 is/are pending in the application.
- 4a) Of the above claim(s) 18-38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-10 is/are rejected.
- 7) ☒ Claim(s) 11-17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election of claims 1-17 made 10/21/03 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement in the response filed on 4/29/04, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4-7, 10 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deeg et al (US 3,811,857) in view of Menear (US 3,534,272). Deeg discloses a method for fire polishing a glass sheet. Deeg provides a heat source in order to remove scratches from the surface of a glass (Col. 2, lines 30ff). The heat source melts a thin layer of the surface of the glass in order to smooth the surface (Col. 2, lines 19ff). As noted by Deeg the temperature of the heat source would depend on the deepest pit or fissure on the surface of the glass (Col. 2 lines 28-33), thus it is deemed that the temperature of the heat source is controlled. The heat source deemed as apparatus 11 has a substantially linear tubing 17 as shown in figure 1. Deeg in distinguishing his invention over the prior art notes that the prior art uses flame torches such as oxygen/hydrogen flame and direct current plasma torches for fire-

polishing glass (Col. 1, lines36-38). Deeg is silent disclosing how the prior art uses torches to fire polish glass. However, as taught by Menear, using downwardly projecting burners that are placed in oscillatory motion in a horizontal plane may be used to carry out fire polishing of a glass (Col 6, lines60ff). Thus at the time the invention was made it would have been obvious to a person of ordinary skill in the art, absent any indication by Deeg, to move its fire-polishing burners as conventionally done in the art which as shown by Menear to have oscillatory motion in a horizontal plane.

In regards to the claimed limitation that the flame is substantially relatively thin and or the band is equal to the width of the flame as recited in claim 39, it is noted that in order to remove the ridges from the glass surface, a thin flame would be required to only melt and reflow the glass where the scratch occurs in order to unnecessarily reflow unscratched glass surfaces.

As for claims 6-7, the width of the flame would depend on the desired working area to treat the glass and at the minimum have a width of 1mm.

Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deeg et al (US 3,811,857) in view of Menear (US 3,534,272) as applied to claims 1-7 above and in further view of Futerko (US 3,876,149). Neither Menear nor Deeg disclose the structural features of the fire polishing burners. However, Futerko discloses diffusion torches as shown in figure 7 having a both a multiplicity of tubes and a channel having a multiplicity of orifices. Additionally, the torches in as shown in figures 14-17 and 18-21, which are a tubular form of burners shown in figure 7 are useful for fire-polishing glass

Art Unit: 1731

tubes (Bridging Paragraph of Col 15-16). Since the tubular form of the torches shown in figure 7 may be used for fire-polishing, it would be obvious to a person of ordinary skill in the art at the time the invention was made that the torches as shown in figure 7 having both a multiplicity of tubes and a channel having a multiplicity of orifices would also be expected to be used for fire polishing flat glass absent any indication by Menear or Deeg.

Allowable Subject Matter

Claims 11-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The cited prior art fails to disclose or reasonably suggest the planar panel and the slot for burning premixed fuel mixture are substantially vertical and the step of controllably heating includes controlling the distance of between the burner nozzle and the top surface of the planar panel and controlling the fuel to oxygen mixing ratio as recited in claim 11.

Response to Arguments

Applicant's arguments filed 4/29/04 have been fully considered but they are not persuasive. Applicant first argues that Menear does not disclose all the claimed limitations. In response to applicant's it is noted that said arguments against the Menear reference individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re*

Art Unit: 1731

Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicant notes "Menear discloses the removal of mold ridges by projecting burners in oscillatory motion and not progressively across the top surface of a panel." Applicant also notes "Menear describes internal flame treatment of crystallizable glass to produce a glass-ceramic article". Hence, applicant reasons "a person of ordinary skill in the art would not consider the teachings of Menear useful to controllably remove surface scratches from the top surface of a panel".

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

It is herein noted that ridges caused by the mold onto glass as occurred in Menear are no different from scratches on the glass. Ridges on the glass surface are deemed as "scratches". Hence one of ordinary skill in the art reading the Deeg reference, which teaches the removal of scratches/ridges from the surface of a glass by a fire polishing step, would appreciate Menear teaching that fire polishing is conducted by using downwardly projecting burners that are placed in oscillatory motion in a horizontal plane in order to remove ridges in a glass surface (Menear Col 6, lines60ff).

Art Unit: 1731

It is thus maintained that the combination of the both references are proper based on the factual inquiries set forth above in *Graham v. John Deere*.

Applicant's arguments in regards to the Futerko reference fails to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Art Unit: 1731

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlos Lopez whose telephone number is 571.272.1193. The examiner can normally be reached on Mon.-Fri. 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571.272.1189. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CL

A handwritten signature in black ink, appearing to read 'Peter Chin', with a long horizontal stroke extending to the right.

**PETER CHIN
PRIMARY EXAMINER**